CORE MODULE

Background and Best Management Practices

Introduction

The Utah Cattle Health Assurance Program (UCHAP) is an integrated disease prevention program that utilizes a team of advisors to develop a farm-specific herd health plan. The objectives of this integrated herd plan are to

- increase the herd's health, productivity and profitability
- assure food safety, public health, and consumer confidence in dairy and beef products
- promote environmental stewardship

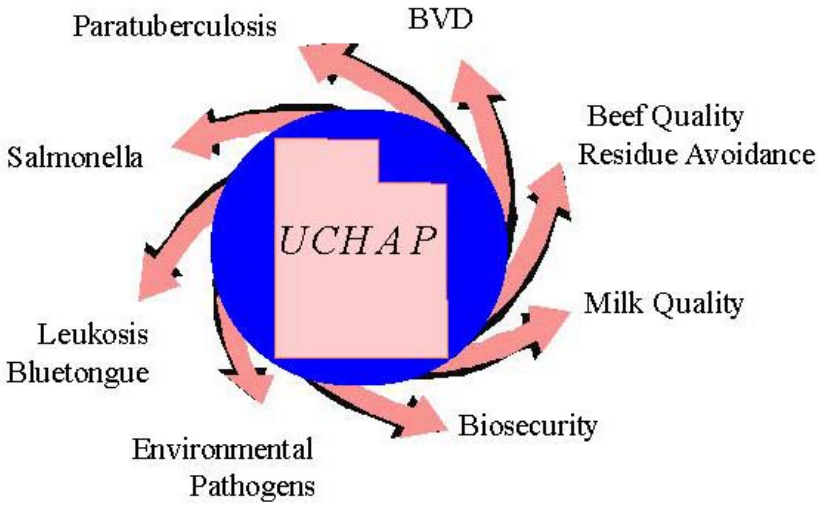
This Core Module is one of several modules that makes up UCHAP and is the starting point for enrollment in the program. More information on the UCHAP approach and how to enroll appears at the end of this flyer.

UCHAP Team

An advisory team can help develop management plans to address complex issues faced by today's producers. One of the highlights of UCHAP is the strong emphasis on this cooperative "team" approach to develop and implement a health assurance program. Program success requires active participation from the producer, employees, herd veterinarian and advisors. Utah Department of Agriculture and Food will be the certifying agency for this program. Additionally, they will work with the herd veterinarian to verify that the farm or ranch is following the program.

Implementing and adhering to disease prevention programs is challenging. Vitally important to success of this program is that team members, particularly the producer, employees and veterinarian implementing the programs, are firmly committed to the principles and goals of the herd health plan. Accurate animal identification and health recording are also essential for program participation.

UCHAP Structure



The UCHAP Concept

The core module of the program is represented by the hub of the wheel consisting of general "best management practices". These best management practices occupy the center of the health assurance wheel because they will benefit production, animal health, food safety, product quality and ultimately profit, regardless of the pathogen or herd stressor involved.

The individual modules "spin off" from the core and contain detailed and specific interventions designed to impact a particular issue or pathogen on the farm or ranch. The farm or ranch plan developed by the UCHAP team is ranch/farm-specific for each module. For example, if a producer wants to work towards the establishment of a Johne's control program, elements of the core best management practices are implemented, along with specific interventions designed to control and reduce Johne's disease on that farm or ranch.

UCHAP Farm or Ranch Evaluation and Herd Plan Implementation

Step 1: Define Farm Goals and Areas of Concern

The core module provides the broadest level of risk assessment for the farm or ranch. The business plans and goals are reviewed. Areas of concern that members of the management team have are noted. Baseline farm data and information on current herd health status are collected to more appropriately develop the farm or ranch's specific program.

Step 2: Assess the Risks

General biosecurity, animal health, quality assurance and environmental risks are then evaluated on the farm or ranch (see section below). The core module risk assessment considers the major pathways that disease organisms or conditions are introduced to and spread within the farm or ranch. Key management practices affecting food safety and quality and environmental stewardship are also reviewed.

Step 3: Develop the Herd Plan

The UCHAP team members (farm or ranch managers, herd veterinarian, etc.) develop a herd plan based on knowledge of conditions and goals specific to the farm or ranch. In putting the plan together, they will select only the appropriate best management practices for the ranch or farm's goals, resources and risks. Above all, the herd plan must be practical to implement.

Step 4: Implement the Herd Plan with All Farm or Ranch Personnel

The herd plan, consisting of a prioritized list of best management practices specific to issues identified on the farm or ranch is discussed with farm personnel who have responsibility for the various procedures. This discussion explains the reasons for specific recommendations within the plan, allows for additional input from those actually performing the tasks, and acts to generate interest in and enthusiasm for the program.

Step 5: Evaluate the Herd Plan and Its Implementation

The herd veterinarian will briefly review the herd plan with key personnel on his visits to the farm or ranch. Annually, the herd veterinarian conducts a review of the herd plan. Modifications to the plan occur at this time and become the new herd plan.

Farms and ranches are recognized annually with the presentation of a certificate that indicates the number of years of participation in the core program and any specific disease modules.

Risk Factors Evaluated in the Core Module

The primary goal of the core module is to minimize disease introduction to, spread within, and transport off the farm or ranch. During the initial visit to the farm or ranch, the UCHAP team assesses the degree of risk to the dairy in four key areas: biosecurity; manure management, feed and water management; facilities; and food quality assurance.

To accomplish this, all areas where infectious organisms could be introduced to the herd are evaluated. Disease problems in many herds originate when purchased animals enter the herd or home-raised animals return to the herd following a show, fair or raising at a contract grower. In other herds, the infectious organism may enter on the boots or clothing of a visitor, perhaps on foot trimming equipment or with the livestock truck. The potential for introduction by feed and water is also evaluated.

Once in the herd, the spread of infectious organisms must be contained. Areas that can affect the spread of disease within the herd such as the vaccination program, housing, animal grouping and density, personnel, and equipment hygiene and the order in which farm or ranch responsibilities are completed are also reviewed.

Manure may contain animal pathogens and it can be an environmental hazard. Therefore, manure must be managed to minimize the chances of ingestion by other farm or ranch livestock, particularly calves and young heifers. Manure must also be managed to minimize runoff into wellheads, streams and lakes. Feed and water can also harbor pathogens and contaminants, so management procedures affecting each of these areas are considered.

The facilities where animals are housed can have a major impact on animal health, well being, and production. Facilities, equipment, animal handling, or treatment methods must be designed to minimize physical trauma and maximize animal comfort and welfare. Areas including stall or housing design, footing, traffic alleys and flow, air quality, and over-crowding are assessed in the core module.

Consumer confidence in food safety and quality is very important to the success of the cattle industry. According to the National Non-Fed Beef Quality Audit, antibiotic residues, carcass bruising, injection site abscesses and scarring, and the sale of over- or under-conditioned or disabled cattle all decrease the quality of marketed beef and income for the producer. The quality assurance portion of the core module is designed to evaluate the use of antibiotics and drugs in order to minimize the chances of contaminated milk or meat. Treatment protocols, injection sites and cattle handling practices are reviewed to minimize damage to the carcass. The goal of this part of the core program is to promote consumer confidence and product quality and enhance farm or ranch profitability.

The Core Best Management Practices

Biosecurity:

- Cattle should come from a reputable source. If possible, the attending herd veterinarian and the source herd's veterinarian need to establish a reasonable program for testing, vaccination, transport, and quarantine for purchased or re-entering cattle. Whenever possible, bring cattle in from a source herd with a defined health history for diseases of concern, including contagious mastitis, Johne's disease, bovine viral diarrhea, heel warts, and *Salmonella typhimurium* infection. Quarantine incoming animals for a minimum of three to four weeks and use this time to monitor for clinical disease. Test additions if their health history is unknown.
- Enhance immunity by maintaining a vaccination program for incoming and resident animals.
- Fenceline contact, contact at exhibitions etc. may also serve as sources of infection to the herd. Minimize contact with non-resident animals including cattle, other livestock, pets, pests, and wildlife to prevent introduction of infections spread by saliva, respiratory secretions, blood, urine, and feces. Use vaccination and segregation protocols to minimize these risks.

People:

- Farm or ranch visitors should not enter any facilities on the establishment unless they have a **real** need to do so.
- Visitors who have to enter animal facilities should wash their boots with a disinfectant or put on plastic boots before doing so. Likewise, insist that all employees, advisors and visitors enter only with clean clothing and disinfected equipment. Use good hygiene to prevent movement of manure around the farm or ranch. Provide boot brushes, disinfectant, and boot wash areas or disposable boots when moving between areas on the farm or ranch.
- Start work routines with young stock and move toward adults to prevent contamination of young stock areas with adult manure. Handle sick animals last.
- Work with every person who routinely enters the facility to make sure they understand concerns for biosecurity.

Vehicles and Equipment

- Establish parking areas away from any animals. Prevent movement of and contact with mud and feces introduced from other farms or ranches. Haul dead or down cows out to the renderer's truck as far away from the facility as possible.

- Don't allow off-farm vehicles to drive into or through the facility. The potential to contaminate feed with manure from another farm or ranch and for fecal-oral transmission of disease is very real.
- Equipment, such as hoof-trimming tables, should be washed thoroughly before it is brought into the facility. Equipment must be cleaned and disinfected between cows, groups, and farms.
- Make sure that the feed wagon doesn't have to drive through manure before entering the facility or bunk silo. KEEP MANURE OUT OF THE FEED!
- Use separate equipment for handling feed and manure

Environment and Facilities

- Pay attention to ventilation in the barn, cow resting behavior and posture, stall design, footing, etc. Minimize overcrowding. Cow comfort plays a large role in the health of the animals.

Nutrition & Feeding

- Analyze forages to meet quality standards. Use clean equipment to mix and deliver feeds. Store and label pesticides and additives safely away from feeds.
- Buy feeds from dealers with quality controls in place. Adopt rodent control programs and keep pets and pests out of feedstuffs. The opportunity for feeds to be contaminated with salmonella or other organisms by rodents, birds or pets at the feedmill, or in storage on the farm is quite real.

Water

- Check water occasionally for microbial contamination and other quality measures.
- Keep cattle away from surface water sources that may be a point of entry or export for disease.

Manure Management:

- Ensure that cow, people or vehicular traffic does not carry manure into feed or feed storage areas or between animals groups.
- Manure removal frequency must be sufficient to avoid accumulation on facilities or equipment.

Environmental Stewardship

- Manure must not be spread near watercourses, on hydrologically sensitive areas, or at times where the probability of runoff or subsurface flows is high.
- Minimize potential for manure runoff from barnyards. Seal household and barnyard wells to prevent contamination of ground water

Product Quality Assurance

- Accurate animal identification and health records are essential for health and quality assurance programs on farms and ranches.
- Prevent meat and milk residues from drug or chemical contaminants by providing written standard operating procedures and employee training for drug use and storage, animal treatments, records, and drug withdrawal from milk and beef.
- Prevent bruising and carcass condemnations. Handle and transport cattle in such a fashion to minimize stress, injury and/or bruising.

- Inspect animal facilities and housing for sharp objects that can bruise carcasses and damage hides.
- Market non-fed cattle to improve carcass value before they become either too fat or too thin and emaciated.
- Market non-fed cattle with physical or health-related disorders in a timely manner to avoid condemnations and minimize unnecessary suffering
- Eliminate all intramuscular injections in the hindquarters to protect the higher-value cuts obtained from this area.
- Administer products labeled for subcutaneous (SQ) use in front of the shoulders. The preferred sites for intramuscular injection include the large muscle masses of the shoulder and neck only (no exceptions, regardless of age).

That sounds like a lot to keep track of on the farm or ranch. The best management practices described here represent a “laundry list” of most of the practices promoted by UCHAP. On any particular farm or ranch, only a handful of these might be included in the herd plan. The farm or ranch advisory team develops the priorities and decides how to address them. That's why it is especially important to involve everyone in the effort. If everyone takes responsibility for their part of a good herd plan, implementing it shouldn't cost much and preventing disease from taking hold of the herd should save a lot.

UCHAP can provide the structure to assess the most important disease issues on the farm or ranch and then develop a practical plan to reduce those risks.

How to Enroll in UCHAP

To enroll in UCHAP, get an application by writing to Utah Department of Agriculture and Food at P.O. Box 146500, Salt Lake City, UT 84114-6500 or from the Department Website at http://ag.utah.gov/animind/uchap_form.pdf. You may also contact Utah Department of Agriculture and Food at (801) 538-7161 for an application. For additional information, contact one of the sources below:

For general information call the UCHAP coordinator, at (801) 538-4910.

Visit the UCHAP website at: http://ag.utah.gov/animind/uchap.html or email us at bking@utah.gov

For diagnostic testing services or information, call the Diagnostic Lab at Utah State University, (435) 797-1895.

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